

REMARKS

Claims 41-45 and 48-88 were pending in the application. In the instant Amendment, claims 45, 80-82 and 88 have been canceled without prejudice, and claims 41, 48-51 and 83-87 have been amended to more clearly describe the invention. Entry of the amendments presented herein is proper in that the amendments place the claims in condition for allowance or place the case in better condition for appeal. Upon entry of the above-made amendments, claims 41-44, 48-79 and 83-87 will be pending.

Claim 41 has been amended to recite that the claimed method is for determining *a representation of measured drug response of a cell type to a drug in terms of one or more biological pathway responses*. Claim 41 has also been amended to recite in the last line that the combination of said one or more biological pathway responses subject to said scaling transformations *is a representation of said measured drug response*. Support for the amendment is found in the specification, e.g., in Section 5.3.1 at page 37, line 37, through page 48, line 25. Dependent claim 50 has been amended accordingly. Claims 83 and 86-87 have been amended similarly.

Claim 41 has also been amended to delete the term "best." Support for the amendment is found in the specification, e.g., at page 28, lines 17-21. Claims 49-51 and 83-87 have been amended similarly.

No new matter has been added by these amendments. Entry of the foregoing amendments and consideration of the following remarks are respectfully requested.

THE REJECTION UNDER 35 U.S.C. § 112, FIRST PARAGRAPH, SHOULD BE WITHDRAWN

Claim 45 is rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or used of the invention. The Examiner contends that the Levenberg-Marquandt method has not been set forth in the specification, and therefore requires undue experimentation. Applicants respectfully disagree with this rejection. However, to expedite the prosecution, Applicants have canceled claim 45. Applicants reserve the right to prosecute claim 45 in

related application(s). The rejection of claim 45 under 35 U.S.C. § 112, first paragraph, is therefore obviated, and should be withdrawn.

THE REJECTION UNDER 35 U.S.C. § 112, SECOND PARAGRAPH,
SHOULD BE WITHDRAWN

Claims 41-45 and 48-88 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants first respectfully submit that while Applicants disagree with the rejection of claims 45, 80-82 and 88, to expedite prosecution, Applicants have canceled claims 45, 80-82 and 88, therefore obviating the rejection of these claims. Applicants reserve the right to prosecute claims 45, 80-82 and 88 in related application(s). The Examiner contends that it is vague and indefinite as to what the “best” scaling determination corresponds to. Applicants have amended the claims 41, 49-51 and 83-87 to delete the term “best,” therefore obviating the rejection of these claims over the use of the term. The Examiner also contends that the response profiles are not relating to drug responses per se which may render the fit to the mode drug response inaccurate. At the outset, Applicants respectfully point out that, contrary to the Examiner’s contention, the presently claimed method requires that the one or more biological pathway responses comprise at least one biological pathway response from a biological pathway that is likely to be involved in action of said drug in said cell type. Applicants further respectfully point out that representing a drug response profile with a combination of one or more pathway response profiles, some of which may not be involved in the action of the drug, is in no way analogous to “shooting a number of times at the side of a barn and then drawing a target on the barn that most closely encompasses the hits” as contended by the Examiner. As a matter of fact, such a representation allows, *inter alia*, the determination of the relative contribution of each pathway response in the model drug response, therefore the determination of, e.g., pathways which are more important in the action of the drug. To this aspect, the claimed methods are analogous to the practice of decomposing a complex vector in terms of basis vectors, where the practice of decomposition is not rendered confusing or inaccurate because one or more basis vectors may not contribute significantly. To make the claim language clearer, Applicants have amended claims 41, 83-84, and 86-87 to recited that the claimed methods are for determining a representation of measured drug response or measured environmental response of a cell type to a drug or an environmental change in terms of one or


more biological pathway responses. Therefore, the rejection of 41-44, 48-79, and 83-87 under 35 U.S.C. § 112, second paragraph, should be withdrawn.

CONCLUSION

Applicants respectfully request entry of the foregoing amendments and remarks into the file of the above-identified application. Applicants believe that all the pending claims are in condition for allowance. Withdrawal of the Examiner's rejections and allowance of the application are respectfully requested.

Respectfully submitted,

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